Foreign Agriculture

January 30, 1978

Foreign
Agricultural
Service
U. S. DEPARTMENT
OF AGRICULTURE

2 World Coffee Output, Exports Still Seen High

6 Manmade Fibers Gain More Markets in '77

8 Central America Important Market For U.S. Tallow

9 India's Pepper Trade

10 China's Crop Report

Harvesting rice in New South Wales, Australia.

Latest estimate dips slightly, but

World Coffee Output, Exports Still Seen Above Last Year's

By William C. Bowser

World coffee production and exportable output appear to be firmly back on the road to recovery from the low 1976/77 outturn. Production will hit 69.6 million bags, slightly down from earlier FAS' estimates, but still considerably above last season's production. Gains in some countries have offset declines in others. The industry has survived adverse weather, coffee rust, and disputes over export prices.

World coffee production in 1977/78 will be 69.6 million bags (60 kg each), according to FAS' third estimate. Although this figure is down about 300,000 bags from the previous estimate, world coffee output will be 14 percent greater than last season's.

Exportable production, representing total harvested production less estimated domestic consumption in producing countries, is estimated at 52.0 million bags, down some 600,000 bags from earlier figures, but 18 percent higher than figures for 1976/77.

Principal revisions in country production estimates (in 1,000 bags) for 1977/78 (with corresponding second estimates in parentheses) are: El Salvador—2,350 (2,700); Honduras—1,134 (950); Mexico—4,100 (4,400); Nicaragua—925 (975); Colombia—9,800 (9,300); Cameroon—1,583 (1,700); Ivory Coast—3,600 (3,800); Kenya—1,367 (1,300); Zaire—1,500 (1,450); and Papua New Guinea—615 (750).

The continued slump in green coffee prices from April 1977 highs prompted action by coffee producing countries. On October 21, some 10 producers of Other Mild Arabica coffee announced a joint decision to suspend further sales of their coffee until prices improved.

On November 4, Colombia and Brazil agreed not to sell coffee below the price of Other Milds and Robustas, and certain other African producers also agreed to limit sales.

This combination of producer action—at a time of low coffee inventories in most major importing countries—stimulated world prices. (*Foreign Agriculture*, December 19, 1977.)

By early January, the International Coffee Organization (ICO) indicator price for Other Milds coffees had increased about 45 cents from October 21 levels to around $2.05 per pound. Following strong protests by importers, most coffee producers resumed exports. However, the overall price situation was an important item on the agenda of the meeting of the ICO Executive Board in Rio de Janeiro, December 12-19, 1977.

U.S. imports of green coffee during January-November 1977 were down one-fourth to 13.46 million bags from the volume imported during the same period in 1976. However, high unit prices increased the total value of imports to $3.54 billion—up 50 percent from that of a year earlier.

With U.S. roastings down 28 percent through September to 10.34 million bags, third-quarter per capita disappearance of green coffee declined sharply. Preliminary indications are that per capita disappearance for 1977 will be less than 10 pounds, compared with 12.8 pounds in 1976.

A summary of coffee production in major producing countries follows:

Coffee output in North and Central America in 1977/78 is currently estimated at 14.7 million bags, compared with 14.0 million in 1976/77. Exportable production is placed at 11.1 million bags, compared with 10.8 million a year earlier. Both El Salvador's and Mexico's 1977/78 coffee crops have been revised downward significantly from preceding estimates—more than offsetting an increase of nearly 20 percent in Honduran production.

Coffee production in **Costa Rica** in 1977/78 is estimated at 1.31 million bags, virtually the same as in 1976/77. Rainfall was insufficient during the early flowering period in main growing areas to fully realize a larger output.

The **Dominican Republic's** coffee output in 1977/78 is estimated at 1 million bags, 43 percent above the drought-reduced crop of 1976/77, but still somewhat below the record crop of 1975/76. Better weather conditions, the up year in the cyclical yield pattern, and Government assistance programs to growers are the primary reasons for the improved crop outlook.

Coffee exports should rise sharply to about 730,000 bags (total green equivalent) from exports of 454,000 bags in 1976/77. Brazil has reportedly contracted for 125,000 bags of the 1977/78 crop and is said to be interested in another 100,000 bags. Foreign exchange earnings from 1976/77 exports reached $128 million, compared with only $91 million in 1975/76. All coffee exports during 1976/77 were shipped to the U.S. market.

El Salvador's 1977/78 coffee production will be down considerably from earlier estimates owing to an extended dry period following blooming. Production is now projected at 2.35 million bags—350,000 bags less than the preceding estimate—compared with 2.7 million bags in 1976/77.

The lower elevation coffee areas that ordinarily represent about 60 percent of production were most affected. Higher elevation farms received nearly normal rainfall and are expecting good crops, although the harvest this year will be a little later than usual.

In **Guatemala**, 1977/78 production is forecast at 2.55 million bags—slightly higher than that of last year. The second national survey for coffee rust was completed with negative results. Preventative measures taken by the Ministry of Agriculture are being carefully observed and strictly enforced.

In contrast, actions taken to prevent the spread of coffee bean borer have not been successful; recent reports show the infestation

The author is an agricultural economist, Sugar and Tropical Products Division, Foreign Commodity Analysis, Foreign Agricultural Service.

A Colombian family harvesting coffee beans. As a result of better cultural practices, higher yielding varieties, and assumed normal weather, Colombia's 1977/78 coffee crop is estimated at 9.8 million bags.

now covers about one-third of total coffee area. Should the infestation continue to spread, it would not be long before the crop outturn is seriously affected.

Total f.o.b. value of Guatemalan coffee exports in 1976/77 was $477 million, compared with $198 million in 1975/76.

The 1977/78 outlook for **Haiti** is for production of 550,000 bags, up only slightly from that of 1976/77. Heavy rains in recent months have caused some damage to the developing crop. Also, the drop in prices is expected to be a disincentive to increased production inputs.

Limited by lower output and increased domestic consumption, exports in 1976/77 fell 40 percent to 264,772 bags. In 1977/78, exports could reach 350,000 bags.

Coffee production in **Honduras** in 1977/78 is currently estimated at 1.13 million bags—nearly 20 percent above earlier forecasts. If this estimate is realized, the Honduran crop would be about 50 percent larger than the 1976/77 outturn and a record crop. The bulk of the increase is the result of greatly improved cultural practices, rather than a major increase in area.

Mexico's 1977/78 coffee production is estimated at 4.1 million bags—down from earlier estimates, but still well above the 1976/77 outturn of 3.8 million bags. Considerable renovation has occurred in some older producing areas, along with plantings of new, higher yielding varieties.

Exports of green coffee are estimated at 2.5 million bags in 1976/77, with the United States—as usual—the major market. About 80 percent of all Mexican coffee reportedly enters the United States through Laredo, Texas. Reasons for the increased land shipments include quicker payment on sale, shorter transit time to final destinations, and lower transportation costs.

Coffee outturn in **Nicaragua** for 1977/78 is estimated at 925,000 bags—about the same as in 1976/77. Climatic conditions for the new crop have not been overly favorable—early rains triggered bloom, but the rains ceased, causing considerable bloom drop and a relatively poorer bean set, particularly in the Pacific production region.

However, in the more important northern regions, rains were mostly adequate and a good crop is anticipated.

Despite the outbreak of coffee rust, production in 1976/77 was up about 14 percent from the preceding year's because of better cultural practices, coupled with new plantings coming into bloom.

Eradication and control measures for coffee rust have been highly effective. Latest reports are that the disease remains under control, although the number of infestations picked up somewhat in the latter part of the rainy season. However, no traces of rust have been found yet outside the Carazo region.

Total coffee production in South America in 1977/78 is estimated at 30.4 million bags, with exportable production placed at 20.6 million. This compares with 22.0 million and 12.4 million bags, respectively, in 1976/77.

The major revision in the third estimate is for Colombia, where estimated output in both 1976/77 and 1977/78 is up 500,000 bags. Improved cultural practices, including major renovations to older coffee areas, as well as favorable weather are the main reasons for the gains.

The production estimate for **Brazil's** 1977/78 crop remains unchanged at 17 million bags, compared with 9.3 million bags for 1976/77. With domestic consumption estimated at 7 million bags in both years, the corresponding exportable crops are 10 million bags in 1977/78 and 2.3 million in 1976/77.

Brazil's coffee export sales virtually came to a halt at the end of April 1977, when world green coffee prices started their downward movement. From that time through November, the Brazilian Coffee Institute maintained its minimum export registration price at $3.20 per pound—well in excess of world prices and effectively limited foreign sales.

Total Brazilian exports during January-November reached about 9.2 million bags—including the green coffee equivalent of some 1.5 million bags of soluble coffee. All but about 800,000 bags of this total volume was exported during

A Kenyan farmer pruning his coffee trees. It is possible that Kenya's 1977/78 coffee crop could equal or surpass last season's record.

January-June. Even though Brazil's exports were down sharply during July-November, foreign exchange earnings from coffee during the first 11 months of 1977 were roughly $2.5 billion—a record high in Brazil's export history.

On the basis of ICO stock figures for Brazil as of April 1, 1977, plus 1977 estimated production (harvested primarily during April-August), official export data, and estimated 6-month consumption, Brazil's green coffee stocks as of September 30, 1977, were approximately 23 million bags.

With this relatively good supply on hand, and the 1978 harvest beginning in April, pressure undoubtedly is building on Brazil to begin exporting larger quantities.

In addition, the 1978 coffee harvest should reach 21-23 million bags, if growing conditions are reasonably favorable and adequate rust and insect control measures are taken.

Colombia's coffee output in 1977/78 is now estimated at 9.8 million bags—taking into account better cultural practices, assumed normal weather conditions, and continued greater production from sizable areas planted recently to high-yielding, shadeless varieties.

As a result of an outstanding 1976/77 harvest, Colombia's crop for last season is placed at 9.3 million bags. Coffee exports in 1976/77 were down 25 percent in volume to 5.3 million bags from those of the previous year. However, coffee export earnings hit a record $1.5 billion, a gain of 70 percent over the preceding marketing year.

Because of drought conditions in some producing areas, **Ecuador's** 1977/78 coffee outturn is estimated at 1.28 million bags—about 7 percent less than the excellent 1976/77 harvest.

On an October-September basis, Ecuador's green coffee exports totaled 1.16 million bags—some 3 percent greater than a year earlier. During May-July, exports dropped off as a result of falling world prices, but shipments picked up significantly again in August-September.

The coffee harvest in **Venezuela** in 1977/78 is placed at 1.1 million bags—30 percent greater than last year's crop, but about the same as the 1975/76 outturn. Too much rain during the blossoming period reduced 1976/77 production.

Coffee has been a scarce commodity in Venezuela during the past year, as sharply higher world prices caused local producers to withhold coffee from the domestic market, where prices were frequently less than half those obtained for export.

To improve this situation, the Government will pay the National Coffee Fund the difference between the international price and the domestic price of coffee.

Total coffee production in Africa for 1977/78 is estimated at 17.6 million bags—5 percent less than the 1976/77 crop. Exportable production for 1977/78 is placed at 16.2 million bags, compared with 17.1 million last season. Downward revisions for 1977/78 crops in Cameroon and the Ivory Coast were only partially offset by higher estimates for Kenya and Zaire.

Production of coffee in **Cameroon** in 1977/78 is currently estimated at 1.58 million bags—one-fourth larger than the revised 1976/77 outturn. Input availabilities and weather have been generally favorable in Cameroon.

As of September 1977, some 1 million bags of coffee had been purchased by Government-appointed agents. Aging trees, the switch from cash to food crops, and comparatively poor producer prices are some of the reasons for the relatively low 1976/77 crop.

However, the Government has initiated a new policy of providing farmers with free fertilizer, insecticide, and other production aids. The Government is also subsidizing the replanting of old and marginal plantations.

Production of Robusta coffee in Cameroon is rising—accounting for approximately 80 percent of the 1976/77 crop. Some increase in both Robusta and Arabica varieties is forecast for 1977/78. All Cameroon coffee—except for 50,000-55,000 bags—is destined for export.

Estimates for **Ivory Coast** coffee output for 1977/78 and 1976/77 have been revised downward. The 1977/78 crop is currently placed at 3.6 million bags (down from 3.8 million), while the 1976/77 crop is estimated at 4.7 million bags, com-

pared with 5 million bags earlier.

The low forecast for the current crop is the result of drought conditions early in the season, combined with too much cloud cover during the following months. Beans are small, and the projected ratio of beans to cherries is only 30 percent, compared with an average of 45 percent.

It is possible that **Kenya's** 1977/78 coffee production could equal or surpass the record 1976/77 outturn of 1.45 million bags. At present, however, the crop is estimated at 1.37 million bags, based on early returns. This figure could be higher, however, if coffee deliveries to the mills from the main crop, harvest of which begins in January, matches the excellent showing of last year.

Excellent rains and better farm management were responsible for the good 1976/77 crop. Rainfall for the 1977/78 season has also been excellent and augurs well for the main crop.

The problem of storing and handling of clean coffee, associated with last year's bumper outturn, will be minimized when the Kenya Planters' Cooperative Union completes the construction of its new seven-story warehouse in 1978.

Nigeria's coffee production in 1977/78 is estimated at 72,000 bags, compared with 53,000 in 1976/77. Weather conditions have been good and growers have been encouraged by a 56-percent increase in producer prices for coffee during the current marketing year. Nigeria exports some green coffee, but domestic consumption—including imports of processed coffee—frequently exceeds domestic output.

Coffee outturn in **Zaire** is expected to increase to 1.5 million bags in 1977/78, compared with 1.43 million bags in 1976/77. Improved management techniques are primarily responsible.

In 1976/77, sharply higher prices for coffee brought about a large increase in harvested area as abandoned plantations were rehabilitated.

An estimated 1.5 million bags of coffee were exported from Zaire in July 1976-June 1977—somewhat less than the record 1.6 million bags shipped during the previous season. A temporary halt in shipments in May-June 1977 and transit problems through Uganda and Kenya kept exports in 1976/77 from being even greater.

Total coffee production in Asia remains unchanged at 6.3 million bags for 1977/78, as a somewhat higher estimate for Indian production equaled a downward adjustment in the Indonesian outturn. In Papua New Guinea, the only commercially important coffee producer in Oceania, the 1977/78 crop is now estimated to be less than that of last season, owing to adverse weather conditions.

India's 1977/78 coffee crop—based on postblossom estimates—is currently given at 1.92 million bags, more than half of which will be of Arabica coffee. The substantial improvement in the 1976/77 crop—estimated at 1.79 million bags—is largely attributed to the comprehensive extension program implemented by the Coffee Board during the season, as well as good growing conditions.

India's exports of green coffee during October 1976-September 1977 are estimated at 950,000 bags, up from the official figure of 833,000 bags for 1975/76. While coffee imports have declined in some countries, demand in the oilrich Middle East Region for Indian coffee has been so great that smuggling of coffee to those nations reportedly has become a very profitable business.

Indonesia's 1977/78 coffee crop is placed at 2.95 million bags—up from 2.82 million last season. Slight increases in yields are expected to offset some decline in area.

Despite higher coffee prices, significant gains in yields are not anticipated in the near future because of the predominance of smallholder cropping patterns—marked by insufficient fertilizer use and poor management practices. Overcrowding of trees, little—if any—pruning, disease, or pest control efforts contribute further to low yields.

While Indonesia's coffee export markets are heavily concentrated in four countries—the United States, the Netherlands, Japan and Denmark—this concentration is not as pronounced as it was years ago.

Green coffee exports in January-July 1977 reached 1.2 million bags, valued at $340 million; exports during the 12 months of 1976 totaled 2.3 million bags, but the value was only $237 million.

The outlook for coffee production in **Papua New Guinea** in 1977/78 is for a crop of 617,000 bags—12 percent less than last season's. Adverse weather conditions have lowered yields, and 2 years of high prices have created a high degree of cash liquidity. Many growers are not as eager to prune and weed as they had been in earlier years, with the result that plantations are showing some signs of neglect.

Exports of green coffee reached 830,000 bags in July-June 1976/77, but are expected to plunge to 630,000 bags in the current fiscal year. □

"On the basis of ICO stock figures for Brazil, estimated 1977 production, official export data, and estimated 6-month consumption, Brazil's green coffee stocks as of September 30, were some 23 million bags . . . With this good supply on hand and the 1978 harvest beginning in April, pressure is building on Brazil to begin exporting larger quantities (of coffee)."

Manmade Fibers Gain More Markets in '77

By Robert B. Evans

Although cotton lost still more markets to manmade fibers worldwide in 1977, lower cotton prices toward the end of the year are helping boost cotton sales in 1978. In the long run, however, cotton producers are hampered in their efforts to cut deeper into the manmade fiber market because manmade industry overcapacity, the large number of manufacturers, and the intense competition among them tend to keep manmade fiber prices lower than those of cotton in many countries.

The competitive struggle between cotton and manmade fibers continued strong in 1977, and world manmade consumption has climbed to a point about 10 percent lower than that of cotton. Price relationships will continue to be a major factor in cotton's prospects for 1978 and—since world cotton prices were substantially lower toward the end of 1977—the market for cotton may benefit.

World cotton consumption now is expected to be slightly larger in the 1977/78 cotton year (August-July), despite a continuing textile recession in many countries, and world exports of cotton are also expected to rise moderately.

World cotton consumption, at 13.3 million metric tons in 1976/77, was off slightly from the 13.5 million tons of a year earlier. World consumption of manmade fibers, however, after retreating in 1974 and 1975—rose to a record 11.8 million tons in 1976, not including glass fiber and olefin, for which world statistics are not available.

Despite shrinking mill use, world cotton stocks fell to 4.1 million tons in 1977, the lowest level since 1952. As a percentage of total consumption, world cotton use slipped from 52.7 percent in calendar 1975 to 50.5 percent in 1976, with a further moderate decline expected in 1977.

Manmade fiber use, as a percentage of world usage, went from 43.4 percent in 1973 to 41.8 percent in 1975, recovering to 43.9 percent in 1976. Reports from a number of consuming countries indicate further moderate gains were made in the use of manmade fibers during the first half of 1977 and the year's total may exceed the 1976 consumption record.

World consumption of all textile fibers also set a record in 1976 after 2 years of fallbacks and the 1977 total may exceed that of 1976. However, on a per capita basis, fiber consumption may do well to equal the 1973 high of 6.8 kilograms. World population has been rising at a rate of 1.9 percent annually; world consumption of fibers has kept slightly ahead, climbing by about 2.7 percent annually since 1970, although gains in the early part of the decade, and again in 1976, were partly offset by slackenings in 1974 and 1975.

The level of cotton consumption is affected by the price relationship between cotton and synthetics, and in the United States, the price of SLM 1-1/16" cotton, delivered at Carolina mills, dropped from 80 cents per pound in March 1977 to 52.5 cents in late October. In contrast, the price of polyester fiber rose from 52 cents in late 1976 to a list price of 60 cents at the beginning of 1977. Toward the end of the year, trading was at 55 cents per pound.

This brought the cotton price to a lower level than for polyester fiber for the first time since early 1975.

In overseas markets, the c.i.f. price of U.S. cotton plummeted from the high 80's in the spring of 1977 to around 60 cents per pound in November. This has eliminated cotton's earlier price disadvantage in some countries, but in others manmade fibers are selling at such low prices that cotton prices remained higher, although the margin between the two is reduced.

In Continental Europe, pressures from overcapacity, slack demand, and intense competition—among producers as well as from textile imports—have pushed the price for polyester staple fiber as low as 52 cents per pound, the lowest level since the petroleum crisis, and well below the price for cotton. In the United Kingdom, where conditions in the textile industry have improved somewhat, the December polyester staple fiber price was 63 cents, up 7 cents from 1976's price.

In Japan, the price of manmade fibers for domestic use is set by negotiation between producers and the textile industry. Polyester staple has held at around 58-62 cents per pound since early 1976, about the same as cotton prices now.

In Taiwan, manmade fiber capacity is now greatly in excess of demand, and polyester staple fiber had declined toward the end of 1977 from 50 cents per pound to a loss-leader price of 40 cents. Korea is in a somewhat better situation with a price of more than 50 cents per pound.

The People's Republic of China has little manmade fiber capacity, but offers a market for surplus production from other countries. In late 1977, it was able to buy large quantities from Japan and the United States at 36-

Mr. Evans is an agricultural economist, Cotton Division, Foreign Commodity Analysis, Foreign Agricultural Service.

40 cents per pound, f.o.b.

At about the same time, Hong Kong mills purchased polyester fiber from the United States at 42 cents, f.o.b., and mills in Southeast Asia purchased such fibers at 42-48 cents per pound, c.i.f.

On the other hand, prices for domestically produced manmade fibers were very high in 1977 in a number of countries with small, protected manmade fiber industries.

In the Philippines, for example, the yearend price for fiber of domestic manufacture was around 88 cents per pound, while for imported fiber it was 43 cents, c.i.f., before taxes. Imported fibers enjoy a further advantage, since if textiles produced from the imported fiber are exported, the taxes are forgiven on the exported products.

In India, the heavily taxed price for domestic fiber is $3.13 per pound and, while imported fiber is available for 52 cents per pound, taxes raise the total import cost to the level charged for the domestic product.

In Brazil, the price of fibers produced for the domestic market is 92 cents per pound, but textile mills can import fiber for export products at the lower international price.

Substitution Possible

For many textile end-products, the price relationship between cotton and manmade fibers has a direct effect on the amount of each used, since the percentage of cotton and polyester fiber in blends can be varied within limits. And for other uses, it makes little price difference which fiber is used.

But, for still others, such as towels and underwear, substitution is difficult.

However, it takes time for mills to adjust to a new price situation. Japanese mills, for instance, will not be using much recently purchased, lower priced cotton until about February or March 1978.

In the United States, cotton's share of mill fiber consumption was down to 30 percent in 1976; in countries of Western Europe to 29 percent; and in Japan to 35 percent. In these developed countries, however, cotton's percentage had dropped little if at all in the last 3-4 years, and it appears that substitution in the future will be more difficult than in the past.

The sale of cotton has benefited, of course, from the fashionableness of all-cotton denims and corduroys, although synthetic fiber manufacturers are having success in penetrating these markets with blends.

In the developing countries, the percentage of cotton use is high, although some are erecting new, large synthetic fiber mills. In India, 85 percent of all fibers used are cotton; in Pakistan, 91 percent; in Egypt, over 90 percent; and in Brazil, 63 percent.

In a number of cotton importing countries, Government and industry officials found in 1976/77 that polyester fiber was available at a world market price far below that of cotton and well below all-in costs of synthetic production.

The People's Republic of China, India, and Pakistan all imported manmade fibers on a substantial scale in 1977. In India, all cotton mills must now use 10 percent manmade fibers in their products.

Whether or not the low prices will bring cotton textiles back into favor in the developing countries, it is still likely that the percentage of cotton used in these countries will gradually fall in the years ahead.

Production and consumption of manmade fibers in several Communist countries continue to rise. In the Soviet Union, output climbed from 600,000 tons in 1970 to 1.1 million in 1976, with most of both years' production being rayon.

USSR cotton production in 1976 was 2.6 million tons, about one-fourth of which went into net exports. The latest Soviet 5-Year Plan calls for output of manmade fibers to rise by 50 percent between 1975 and 1980, but sets the production rise target for cotton at a more modest 17 percent.

Plants Being Built

The People's Republic of China is thought to have produced 177,000 tons of manmade fibers in 1976, mostly rayon, compared with 2.4 million tons of cotton.

Despite the 50-percent overcapacity in the world, many countries continue to build new synthetic fiber plants. Large investments are required for viable plants, and manmade fiber manufacturers are in a vulnerable position if forced to operate plants at much less than capacity.

In the United States, some companies lost money on their manmade fiber production in 1977; others earned only a small return.

In Western Europe, it is estimated that the manmade fiber industry will have lost $900 million in 1977, compared with a loss of $620 million in 1976, and around $1 billion in 1975. Some of the larger companies face bankruptcy and are shutting down plants despite labor-law barriers against such closures.

In Japan, the Government required synthetic fiber producers to reduce output by about 4 percent in October-November 1977. In Taiwan, the industry was reported to be running at a substantial deficit.

On the other hand, a U.S. synthetic producer was encouraged by Brazilian Government incentives to open a plant in Brazil in 1977 to produce 18,000 tons of polyester staple fiber annually.

Contributing to rising costs for manmade fibers are higher prices for petroleum, electricity, and labor, even though a $1 rise in the per-barrel price of petroleum is said to boost the cost of producing synthetic fibers by only a cent per pound.

Because of overcapacity, proliferation in many countries, and the intensity of competition among producers of manmade fibers, it appears unlikely that the cotton industry will again have a price substantially lower than synthetics, as was the case in the past.

Although there has been no important manmade fiber introduced for general textile use in 20 years, the industry continues to refine and make innovations in its handling of existing products. Formerly most companies sold highly advertised, proprietary products at set prices. These have been replaced to a large extent by firms that sell fibers as a "commodity" with little or no promotion at highly competitive prices.

World output of rayon and acetate, the original manmade fibers—which are made largely of wood pulp—had been declining for several years in the early seventies, but picked up a little in 1976 when they accounted for 27 percent of total manmade fiber output.

Production of polyester, the fiber usually blended with cotton, has been gaining steadily in favor and is now the most important manmade fiber, constituting one-third of world production. Nylon accounts for one-fourth and acrylics, often used as a wool substitute, for 15 percent. □

Central America Is Important Market For U.S. Tallow

Mexico, Central America, and the Caribbean as a region made up the third most important market for U.S. tallow exports in 1976 ($42.6 million in trade), exceeded only by Egypt and Japan.

This region is likely to grow as a major tallow importer, particularly as many countries expand their poultry industries and further develop their swine industries, thus boosting their need for animal feed fat and animal protein meals.

These are the conclusions of a market survey conducted last summer by the National Renderers Association of six countries in this region—Guatemala, El Salvador, Nicaragua, the Dominican Republic, Haiti, and Jamaica.

These countries should remain good markets for U.S. tallow because demand for basic agricultural commodities grown in this region—coffee, cotton, sugar, and bananas—are expected to continue at high levels, and thus limit resources for use in production of fats, oils, and protein meal.

In addition, the relative proximity of these markets to the United States augurs well for U.S. suppliers of tallow, grease, and meat and bone meal because freight charges would be less than from other countries.

Development of poultry—and possibly swine—industries in these countries requires increased amounts of feed fats and proteins. Poultry operations—broilers and layers—have been growing substantially but the potential of swine production barely has been scratched.

Efficient commercial operations for swine, similar to those for poultry, could increase hog numbers and, consequently, increase the potential market for feed fat and animal protein meals.

Expected economic and population growth is also likely to result in increased demand for toilet soap production in these countries, requiring larger imports of tallow.

Guatemala. As a result of the high-priced coffee market, the economy of Guatemala is currently strong.

Since domestic production of fats and oils is insufficient, tallow is imported under licenses that are issued rather freely. In calendar 1976, Guatemala imported 11,134 metric tons of U.S. tallow and greases, but no animal protein meals. Guatemala prohibits the use of tallow in animal feed on the basis that the tallow could be diverted into human food instead.

The Guatemalan poultry industry has grown rapidly in recent years, with fully integrated operations encouraged by the Government through exemptions on both sales and income taxes. Broiler production is estimated at 300,000-400,000 birds per week, and layer numbers at 2.5-3.0 million.

Cattle numbers in Guatemala number 2.27 million head, with slaughter numbers at some 456,000 head. Most cattle are seasonally slaughtered early in the dry season (November-April) as grass-fed animals only. This bunched seasonal slaughter requires that much of the feed fat and meat and bone meal produced during this heavy slaughter period must be stored to adjust to year-round demand by poultry and other industries.

Swine in Guatemala numbered an estimated 840,000 head in 1976, with slaughter running at 336,000 head. Commercial integrated swine operations offer the most potential for both protein and feed fat of U.S. origin.

Although feed companies in Guatemala cannot—under Governmental regulations—import feed fat, they can import animal meals—protein, meat and bone meal, feathermeal, and blood meal. Fishmeal is not considered an essential ingredient. Except for some fishmeal trucked in from Panama, its high cost and large minimum-order quantities (600 tons from Peru) exclude this item as a competitive ingredient.

Cottonseed meal is subsidized to the feedmill at a price below the world price; however, restrictions on availability of cottonseed meal and amounts that technically can be used in a ration are limiting factors.

One Guatemalan company, which refines cottonseed oil, laundry soap, fatty acids, detergents, cosmetics, and toilet soap, has purchased Central Soya de Guatemala, S.A. They currently import approximately 500 tons of tallow per month of extra fancy, fancy, or bleachable, depending on the price differential and the cost to bleach. Another company imports some 500 tons every 1½-2 months for soap manufacture and laundry flakes.

Guatemala City has a serious pollution problem of detergent waste and this may open markets for a biodegradable, nonpolluting, tallow-based detergent.

El Salvador. In 1976, the United States exported 14,091 tons of tallow to El Salvador, making it the second largest U.S. customer in the Latin American region.

An important factor in the shipment and distribution of tallow has been Termicar, S.A., with a terminal facility at Puerta de la Laguna. This bulk terminal facility gives soapers, feed manufacturers, and other users flexibility in purchasing on an "as needed" basis, resulting in improved inventory control. With charter ships and its own vessels, Termicar transports coconut oil to the U.S. west coast and tallow on the return haul.

In order to build up as much volume as possible and keep the number of tanks to a minimum, Termicar handles extra fancy tallow, selling it to both soapers and feed manufacturers. In addition to volume and inventory advantages, using the extra fancy product, with its relative chemical stability, substantially reduces the need for antioxidants.

Termicar has no bulk facilities for handling meat and bone meal or feathermeal; however, should the

---

Based on a report by Jack L. Crouse, director of market development, National Renderers Association.

rendering industry be interested in becoming a steady supplier of these products in Central America, there is a good possibility of establishing such bulk facilities.

Fabricas Oliva, S.A., manufactures laundry soap bars, using some 300 tons per month of extra fancy and fancy tallow. This company prefers to buy its tallow direct ex-Gulf coast; however, it can purchase tallow from Termicar, at lower freight costs.

Nicaragua. This country's livestock industry has improved considerably during the past few years, owing primarily to beef exports to the United States. There appears to be little opportunity to increase shipments of feed fat for cattle to Nicaragua, however, as cattle are almost entirely grass fed.

Fat in feeds has the most potential in poultry and swine feeds, if the industry can establish significant integrated commercial operations. Nicaragua has more swine than either Guatemala or El Salvador, and, in fact, sells pork products to both markets through the Central American Common Market (CACM).

Dominican Republic. This country has a fats and oils deficiency of some 40,000 tons annually, or 60 percent of its needs. Growth in population and income could increase this deficiency to 80 percent or more than 50,000 tons in the medium-term future. In 1976, the Dominican Republic imported some 13,223 tons of tallow from the United States.

One company purchases feed fat, meat, and bone meal, and feathermeal primarily from one large U.S. firm. This company, Proteinas Nacionales, adds 10 percent feed fat in concentrate feed for broilers and 4-8 percent in other broiler rations. These broiler feeds are 60 percent of this company's feed production and the balance is used in swine, rabbit, and horse rations. The poultry market in the Dominican Republic has developed rapidly, although it is not fully integrated.

A large Dominican soap manufacturer has recently diversified into animal feed manufacture and purchases tallow and meat and bone meal. This company's rate of tallow usage is about 350 tons per month, imported in bulk shipments of 700-800 tons each, primarily from U.S. firms, to cover about 2 months' need.

The Dominican Republic has no commercial fishing industry and minimal soybean production, resulting in a protein meal deficit that—given the rapidly expanding feed industry—is expected to continue to grow within the next several years.

Haiti. Major tallow importers in Haiti are soap manufacturers and oil refiners, as there are no commercial livestock or poultry industries or feedmills.

The distribution channels for tallow are well established in Haiti and most opportunities for sales currently fall within the trade servicing areas. In 1976, Haiti imported roughly 7,886 tons of U.S. tallow.

Jamaica. High unemployment and depressed sugar markets have created some economic and political factors that are working against market opportunities for U.S. exports of animal fat and animal protein meal to Jamaica.

As in Haiti, tallow trade in Jamaica is narrowly conducted, with one importer accounting for most of the business. The feed fat business that presents the most potential is poultry feed. Exports of U.S. tallow to Jamaica in 1976 were 9,436 tons. □

Another Year of Good Returns For India's Pepper Trade

India's pepper production and trade are looking to another season (November-October) of good returns, supported by sustained domestic and export demand and favorable prices.

Production during 1977/78 is forecast at 35,000 metric tons—the same as during 1976/77—and exports at 24,000 tons, down slightly from the previous season's 25,400 tons. However, price realization is expected to be as large as in 1976/77.

Pepper prices were at a high level during 1977 and reached a peak of $1.25 per pound, c.&f. New York, in March. Recently, prices have been about $1.15 per lb.

Early reports on the 1977/78 crop placed the harvest at 38,000 tons, but heavy rains on the Malabar coast during October lowered the estimate to about 35,000 tons. However, some trade officials believe the rains have not affected the size of the crop—only delayed the harvest.

India's pepper exports during calendar 1976 declined sharply to 17,813 tons, compared with 24,399 tons in calendar 1975—a drop attributed to the smaller 1975/76 crop and high prices that kept U.S. buyers away from the Indian market. Trade sources estimate pepper exports in calendar 1977 at about 24,600 tons.

India's pepper exports to the United States in calendar 1976 were a mere 318 tons, compared with 5,197 tons in 1975 and 8,415 tons in calendar 1974.

Exports to the Soviet Union and East European countries were slightly smaller in 1976 than in 1975, while shipments to Western Europe rose from 2,033 tons in calendar 1975 to 2,981 tons in calendar 1976.

Exports to the United States during 1977 were expected to reach about 5,000 tons and those to the USSR and East European countries about 15,000 tons, compared with 12,093 tons in calendar 1976. The rise in prices of Indonesia's and Singapore's pepper helped Indian shippers export more to the United States in 1977.

The resumption of India's trade with the People's Republic of China in 1977 is expected to boost Indian pepper exports to the PRC. China formerly bought about 1,000 tons of Indian pepper annually before the rupture of trade relations between the two countries.

India's domestic consumption of pepper varies between 10,000 and 12,000 tons annually, depending on price. The high prices prevailing in calendar 1977 plus good export demand have retarded domestic consumption somewhat.

India's average yield of pepper is only 236 kilograms of dry berries per hectare, compared with yields four times that amount in Malaysia and Indonesia. Some farmers have achieved yields of about 1,000 kilograms per hectare, however. □

Yearend Report on PRC Crop Output Needs Careful Evaluation

The People's Republic of China (PRC) has released a yearend statement on production of grain, cotton, and other crops in 1977, but no numbers were included, and there is considerable debate over the correct interpretation of its content.

Crops. A yearend radio announcement in English by the New China News Agency (NCNA), on December 27, 1977, reported that "China reaped a fairly good harvest this year. Annual grain output reached . . . (the 1976) level, and output of such industrial crops as cotton, jute, ambray hemp, cured tobacco, and tea went up."

This and other statements made during December 1977 confirm USDA's preliminary assessment that the PRC's 1977 grain production was not substantially higher than the poor 1976 crop. But there are still questions as to whether the 1977 crop was, in fact, the same as, or perhaps was somewhat less than, the 1976 level.

Generally, the cold winter of 1976/77, the severe drought in the spring of 1977 in almost all parts of China, and localized flooding and waterlogging from excessive summer rainfall in the North China Plain, undoubtedly damaged crops and would have reduced the increase in 1977 grain crops to a bare minimum—if there was any gain at all. The yearend statement appears to reflect a greater impact from the bad weather in 1977 than was expected.

There are three areas of uncertainty about the 1977 grain crop that at least raise the possibility that production was actually somewhat lower than in 1976.

To begin with, the yearend statement was broadcast only in English by NCNA, and it did not appear, as expected in *People's Daily*, which is read all over China. This was not the case for a companion report by NCNA on 1977 progress in the industrial sector. It appeared in *People's Daily* the same day it was broadcast.

Secondly, the English NCNA statement is the only one in which it was claimed that 1977 grain production was equal to that of 1976. Other national statements during December had been cautious and tended to avoid talking specifically about grain.

Generally, these statements have only used the phrase "a fairly good harvest has been reaped," not referring to grain per se. In the few cases where grain has been mentioned specifically, the harvest has been called "comparatively good," and there has been no comparison with the 1976 crop.

Thirdly, a survey of provincial reports on grain output as of late December appears to point to the possibility of a somewhat lower production level than for 1976 grain crops. Only 13 out of 29 provincial level units (PLU's) have reported increases in grains so far. Of the 13 reported increases, only four reports actually mentioned the magnitude of increase and only in percentages over those of 1976.

In 1976, 16 of 29 PLU's reported increases in grain output. Of these, eight listed specific percentage increases, while eight others claimed new records for 1976 or gains over 1975 levels.

Finally, only eight of the 20 major grain producing PLU's reported increases in 1977 versus 12 out of 20 in 1976.

The yearend report repeated the claim made earlier in the fall that cotton production rose in 1977. There was no elaboration.

If this assessment of the 1977 cotton crop does not change, it is likely that 1977 production was only very slightly above the estimated 2.35 million tons produced in 1976. Only six provinces, all secondary producers, and in total accounting for only about one-fourth of national cotton area, have reported increased production in 1977.

The omission of oilseeds from the 1977 yearend report suggests that production of these crops may not have been as good as the PRC indicated in its October statement, when it included oilseeds among the crops with good harvests. The soybean crop is still estimated to have exceeded 1976's very poor harvest, despite early frost. The decline in peanut production in 1977 was caused in part by the poor yields, which were off sharply in the south because of the spring drought.

Winter crops, so far, have had a better start than in 1976/77. The sowing and growth of winter wheat—before it went dormant in 1977—was more advanced and the growth was more uniform than that of the same period in 1976 in most of the winter-wheat areas of the North China Plain, China's main winter-wheat belt. The fall harvest was completed essentially on schedule, leaving sufficient time, in view of an extended fall, for sowing overwintering crops.

Instead of temperatures averaging from 2° to 5° C below normal in the winter crop areas as in most of November and December 1976, normal-to-above-normal temperatures prevailed in the same period in 1977.

Because of past large-scale farmland capital construction work—expanding irrigation facilities and leveling land—more wheatland can now be watered before the onset of winter than in past years. Further, abundant rainfall during the summer of 1977 left above normal soil moisture in most of the winter wheat areas.

There were localized areas with excess moisture, which probably caused delays in sowing. However, above normal temperatures enabled farmers to plant winter wheat until late November.

By Charles Y. Liu, Carolyn L. Whitton, and Frederic M. Surls, Foreign Demand and Competition Division, Economics, Statistics, and Cooperatives Service.

Foreign Trade. Although complete 1977 data are not available, it appears that the PRC will have imported about 4.5 million tons of grain, all wheat, during the last 6 months of 1977. This places calendar 1977 grain imports—all wheat—at about 6.8 million tons, a record level but below the 7.6 million tons of all grains imported in 1974. Well over 4 million tons of grain are scheduled for import in the first 6 months of 1978, placing grain imports for the 1977/78 (July-June) period at a record level, currently estimated at 9.5 tons.

Less than 1 million tons of grain have been contracted for the last 6 months of calendar 1978. Consequently, the PRC is expected to make additional purchases for delivery during this period. These could amount to as much as 2 million tons unless there is a significant deterioration in winter wheat prospects.

The final months of 1977 brought the first significant U.S. agricultural exports to China since 1974. As of January 1, 1978, U.S. exports and outstanding sales to the PRC in the 1977/78 season were as follows:

Cotton, 54,100 running bales (500 lb) exported, 186,600 bales outstanding; soybeans, 55,000 tons exported, none outstanding; and soybean oil, 46,500 tons exported, 7,400 tons outstanding.

The value of U.S. agricultural exports to China in calendar 1977 was about $60 million. □

Oman Opens as New Market For U.S. Mixed Feeds

The opening of new feedlots for beef cattle and sheep in Oman in recent months triggered the first shipments of U.S. mixed feed in October 1977, to this small Arabian Peninsula country, totaling 399 metric tons, valued at $142,000.

Total U.S. agricultural exports to Oman in 1977 were about $2.5 million—up from $1.0 million in 1976. The new sales of animal feed and recent gains in shipments of beverage ingredients and processed foods accounted for most of the increases.

If plans to develop more feedlots proceed as scheduled, U.S. exports of mixed feed are expected to increase. Or Omani developers might switch to imported feedgrains, as it may be less expensive to mix feed in the country rather than to buy the finished product from the United States.

Problems in importing live sheep for slaughter from Australia because of blue tongue disease may have accelerated plans by investors in Kuwait and Abu Dhabi to build feedlots in Oman.

As a location for new commercial feedlot operations, Oman has many advantages. Supplies of fishmeal are likely to rise markedly as fishing activities of Omani firms expand.

Demand for beef is rising rapidly in Oman and nearby Arabian Peninsula markets. Finally, investment funds from Kuwait and the United Arab Emirates for livestock development in Oman—estimated at over $100 million—are available for this purpose alone. □

South Africa's Cotton Output Up

South Africa's attractive producer prices for cotton resulted in a 32 percent increase in 1976/77 area to 90,000 hectares. Its harvest—aided by good weather—of 33,000 metric tons of lint cotton, was up from 18,000 tons in 1976. Swaziland's output accounts for 9,488 tons of this year's crop.

Producer prices for 1977 were set at the equivalent of $1.738 per kilogram for a grade of lint cotton roughly equivalent to U.S. Strict Middling 1-1/16".

For 1978, the price has been set at $1.493 per kilogram—14.1 percent lower than the 1976 price—but still attractive to producers, who are expected to plant a record 100,000 hectares for 1978 and possibly harvest a crop of 50,000 tons.

Under the previous voluntary agreement, local cotton spinners were obligated to take at least half their requirements from the domestic crop. This provision worked well with smaller crops, but not with the record crop of 41,000 tons (202,518 200-kg bales) in 1974/75.

Now, however, the entire domestic crop must be taken by domestic spinners before they can import supplies, according to a voluntary marketing agreement between the Cotton Board, ginners, and spinners.

As a result, no exports are expected, as these have not been generally profitable. Consumption is increasing, lowering the likelihood of an exportable surplus.

In 1976, South Africa imported about 27,400 tons of cotton, mostly from Rhodesia. The United States, which supplied 1,944 tons, was second largest source.

In 1974 and 1975, a good-sized portion of South Africa's cotton area was under irrigation or irrigable by supplementary water if needed. Some cotton is irrigated in the eastern and northern Transvaal, but irrigation is necessary for all cotton area in the western part of the country.

Mechanical harvesting and handling of cotton are increasing. □

Foreign Agriculture

Vol. XVI No. 5 Jan. 30, 1978

Bob Bergland, Secretary of Agriculture.

Dale E. Hathaway, Assistant Secretary for International Affairs and Commodity Programs.

Thomas R. Hughes, Administrator, Foreign Agricultural Service.

Editorial Staff: Kay Owsley Patterson, Editor; Beverly J. Horsley, Assoc. Editor; G. H. Baker; Marcellus P. Murphy; Aubrey C. Robinson, Isabel A. Smith; Lynn A. Krawczyk.

Advisory Board: Richard A. Smith, Chairman; Richard M. Kennedy; J. Don Looper; Larry N. Marton; Brice K. Meeker; Jimmy D. Minyard; Steve Washenko.

The Secretary of Agriculture has determined that publication of this periodical is necessary in the transaction of public business required by law of this Department. Use of funds for printing *Foreign Agriculture* has been approved by the Director, Office of Management and Budget, through June 30, 1979. Yearly subscription rate: $38.00 domestic, $48.00 foreign; single copies 80 cents. Order from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Contents of this magazine may be reprinted freely. Use of commercial and trade names does not imply approval or constitute endorsement by USDA or Foreign Agricultural Service.

U.S. DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C. 20250

PENALTY FOR PRIVATE USE, $300
OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF
AGRICULTURE
AGR 101

U.S.MAIL

First Class

FA SERIA300SBISSDUE042R 1
SERIALS PROCESSING
XEROX UNIV MICROFILMS
300 N ZEEB RD
ANN ARBOR MI 48106

Soviet Drive To Raise Soybean Production Stalls

The Soviet Union's efforts to step up soybean production to supplement the feed base for increased livestock output have met with little success so far and prospects for further improvement are not bright.

Since the mid-sixties, there has been continual discussion about expanding soybean production and area in the USSR, traditionally a minor producer of soybeans.

In recent years, about 800,000 hectares have been devoted to the crop. Although the 1977 soybean outturn is estimated at around 700,000 metric tons —an increase of 66 percent since 1965—the Soviets have little to show for their recent commitment to soybean expansion.

Most of the soybean cultivation has been concentrated in the Soviet Far East along the Amur River, bordering China, plus a scattering of production points on irrigated land in Central Asia, the Caucasus, Moldavia, and the southern region of the Ukraine. Areas in the Ukraine, Krasnodar Kray, Moldavia, and the Caucasus have been designated for intensified efforts to raise the country's output of soybeans.

Results in the Ukraine illustrate the Soviets' lack of success with this crop. An article in Izvestiya on November 29 highlighted a few of the problems—and prospects—that expanded soybean cultivation is facing in the Ukraine.

The most productive labor units in the Crimea are reaping only 20-30 centners (1 centner=100 kilograms) of soybeans per hectare. Because fertile crop land is limited, land yielding 70 centners of wheat per hectare reportedly would have to be used to produce just 20-centner yields of soybeans and still maintain the same digestible protein output per unit area.

Nonetheless, V. Krivosheev, a deputy minister of the Ukrainian GOSPLAN (State Planning Commission), sees soybean area in the Ukraine rising sixfold to only 30,000 hectares producing 35,000 tons by the end of the 10th Five-Year-Plan in 1980. This increased production, however, is dependent on improved high-yielding varieties, better cultivation and harvesting machinery, and more effective herbicides, specifically the expanded use of trifluralin to control annual grasses and broadleaf weeds. The Soviet minister believes these requisites for increased production in the Ukraine apply to all soybean areas in the country.

Krivosheev's statement that soybean harvesting losses are nearly 20 percent may exemplify the defects in the present system. Despite the Soviets' official line of increasing soybean production, this prognosis casts serious doubts on any significant changes in resources devoted to soybean production and its contribution to improving livestock feed supplies in the USSR. □

By Michael D. Zahn, Foreign Demand and Competition Division, Economics, Statistics, and Cooperatives Service.

Portugal Likely To Import More U.S. Cotton

Portugal's raw cotton consumption is expected to continue near current levels during the remainder of 1978, despite the erosion of the escudo's purchasing power that is affecting domestic demand adversely. The escudo's devaluation has offset the decline in domestic demand by generating increased foreign demand for Portuguese textiles.

Portugal, which does not produce raw cotton, continues to get significant portions of its raw cotton imports from the United States. In 1976/77, U.S. exports to Portugal were 67,000 bales (480 lb net), and 81,000 running bales have been sold or shipped during the current season. The U.S. market share accounted for about 13 percent of Portugal's 1976/77 imports—when about one-fourth of these shipments were made under the P.L. 480 program. Portugal was West Europe's sixth largest cotton importer in 1976/77. □